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Exploiting Social Media potential to leverage innovation: a case study

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Abstract: Social media (SM) has revolutionized the way organizations interact with actors both inside and outside their boundaries. SM makes intensive use of web-based and mobile applications to create interactive platforms where individuals and communities can co-create and modify user-generated content. The new channels and modalities of communication enabled by the emergence of SM promise a tremendous potential for innovation. However, few companies manage to successfully leverage and exploit benefits of SM usage for innovative endeavours. We propose through an illustrative case study of a multinational company in the energy and environment industry to shed light on the relevant use of these new media on innovation and explore a number of related issues. Contributions of this research are twofold, i.e. conceptual and managerial. The conceptual contribution lies mainly in the analysis of the impact of SM use on innovation processes. The managerial contribution involves identifying organizational best practices regarding SM use.

Keywords: Social Media, Open Innovation, R&D, Innovation Processes.

1 Introduction

From a long time innovative efforts of companies were focused on new technologies and vertically integrated R&D was the most common way to develop new products. From Labs to Skunk Works, brick and mortar R&D infrastructures and "invent-it-ourselves" models were the dominant design of innovation. Since the 2000's and the emergence of the Internet, the world's innovation landscape had drastically changed and innovation models were forced to do so. In order to sustain high-levels of growth and prevent to be disrupted (Christensen, 1997) or threatened by new entrants in their own markets, innovative companies needed to deal with explosion of new technologies and increased flows of information. They opened themselves to the outside, to external sources of technologies and ideas as highlighted by the Open Innovation paradigm (Chesbrough, 2006) to grasp opportunities or develop partnerships with external actors, may they be organizations such as suppliers, distributors, SMEs, multinationals, universities for

instance or individuals like users, citizens or engineers. As a way of consequence, innovative companies design new business-models in order to be able to offer new and continuously updated value propositions to their customers, before competition does. To succeed to manage this in this henceforth complex and multi-actors context, firms develop new approaches and tools to connect them all from an ecosystemic perspective. Social Media (henceforth SM), in fostering communication and connecting people and companies represent "a vehicle for developing customer insights, accessing knowledge, cocreating ideas and concepts with users, and supporting new product launches" (Roberts & Piller, 2016). Current research suggests that, despite the promise of the use of SM for innovation, this potential is frequently not realized in practice. Actually the use of SM by companies for new product development lags far behind SM use by the general public (Roberts & Piller, 2016). Although some companies have been able to use social media to develop new insights that lead to successful new products, many others simply do not know how to utilize social media for innovation. This work in progress intends to contribute to reveal knowledge about the strategic use of SM for innovation by investigating the effects of a differentiated use of SM tools within a multinational company.

2 Using Social Media for innovation

Social Media (SM) has revolutionized the way organizations interact with actors both inside and outside their boundaries (Kaplan & Heinlein, 2010). SM makes intensive use of web-based and mobile applications to create interactive platforms where individuals and communities can share, co-create, discuss, and modify user-generated content. SM have introduced substantial changes to the way communication takes place between organizations, individuals, and the community at large. SM include not only mainstream social networking websites such as Facebook or Twitter, but also applications that permit fast and/or short multi-directional interactions (e.g. RSS) and exchanges of information (e.g. blogs and wikis). These new tools are based on participation, creativity and high levels of interaction between users, and are characterized by low barriers of entry and user-friendly interfaces based on web-based applications. From a company perspective, these innovative tools offer tremendous potential in terms of access to a vast source of untapped knowledge both inside and outside the organization.

Despite this potential for innovation, many organizations do not yet have a specific or adequate approach to the challenges and opportunities offered by SM. Faced with more collaborative, open and frequent methods of interaction with the external environment, the challenge for companies is to find out how to best benefit from this shift in communication behaviour that can never be completely restricted or controlled. Consequently, organizations should find out how to harness the innovation potential of SM while minimizing the risk of losing competitive advantage when sharing knowledge in SM networks.

There appear to be several strategies of SM use for innovation among today's organizations. At a basic level, some innovative companies use public SM (e.g. FaceBook, Twitter…) to source ideas for improving existing products or services and to develop new ones (Huston & Sakkab, 2006; Ooms et al., 2015). These organizations actively listen to external SM networks as a source of ideas and recommendations and may even participate in online conversations in order to become an active part of the

community. At a most advanced level, some organizations have adapted existing public SM platforms for extended internal use, such as using Facebook groups for official internal/external interaction or have even built their own internal SM networks with external capabilities. Other organizations decided to develop their own SM solutions for innovation. For instance, IBM's internal social network, "Beehive", facilitates a number of activities that are valuable for innovation, such as expertise identification and fast solicitation from the extended online community (Turban et al., 2011). Another example is Procter & Gamble's with the "Connect & Develop" platform, whose purpose is to nurture external social interactions in order to benefit from the ideas and solutions that come from elsewhere (Chesbrough, 2006). Company employees are allowed to post problems and needs on the platform that external players, such as research institutions, customers, suppliers, individuals and even competitors, are invited to solve with the prospect of earning a reward if the idea proves successful (Huston & Sakkab, 2006). But research is still lacking on knowledge of organizational mechanisms able to combine both intra and extra-organizational use of SM for leveraging innovation complementary to classical R&D approaches.

3 Leveraging innovation through a differentiated use of Social Media: A case example in the energy & environment industry

To do so we will rely on an illustrative case study of a multinational company (a major global energy and environment player named henceforth ALPHA for confidentiality reasons) that has leveraged a new approach of innovation largely relying on the use of SM. Indeed, ALPHA's managers needed to find ways to overcome one of the most important challenges for this company (but also for the whole society): energy transition. Beyond the need to develop sustainable decentralised renewable energy sources as well as new energy efficiency, the concept of "energy transition" encompasses a reorientation of policy from demand to supply and a shift from centralized to distributed generation (for example, producing heat and power in very small cogeneration units). The aim is to replace overproduction and avoidable energy consumption with energy-saving measures and increased efficiency.

As the energy transition entails a democratization of energy, ALPHA needed to develop new business approaches. Indeed, the traditional energy industry is an oligopoly where a few large companies with large centralized power stations dominate the market and consequently benefit from both economic and political power. Renewable energies, in contrast, needs to be established in a decentralized manner. For instance, public wind farms and solar parks can involve many citizens directly in energy production.

Therefore ALPHA has decided to create in 2014 a small, new organizational entity dedicated to the development of new business activities: ALPHABUZZ. This entity is composed of a team of about 20 persons with different backgrounds (in terms of education, jobs and seniority) whose job is to reveal new business areas. To do so, they rely on the development of intrapreneurship and incubation, of partnerships and communication, as well as investment in high-potential start-ups and ventures. These activities are mainly relying on a specific use of SM. Indeed ALPHABUZZ developed and implemented two "home-made" SM tools, one dedicated to open innovation (to attract external skills, ideas, R&D projects) and the second one as an internal idea

crowdsourcing and social networking platform in which employees can submit ideas to be turned in the development of new businesses via an incubation process. These tools are both destined to address three domains of interests, presented as the three main innovation priorities. They are respectively: (i) intelligent energy management; (ii) smart cities and (iii) mobility; and energy efficiency. They are also deployed at the (whole) group level. This double perspective (internal and external) has considerably leveraged their explorative capabilities and generated the creation of nine new incubated ventures in less than a year, regarding the sole use of the internal SM tool.

If these in-house developed SM solutions are scanning both the internal and the external environment to leverage business innovation, other innovative endeavours through the use of licensed, enterprise SM solutions (such as Microsoft Sharepoint/Yammer or BlueKiwi solutions) are done at the Business-Units (BUs) or subsidiaries level. To do so, BUs have integrated the use of such SM tools in their processes to provide to their employees solutions to find expertise, share knowledge, solve problems faster and save time. BUs that made an advanced use of theses SM tools have developed a rigorous development strategy of the solution and leveraged benefits of efficiency in their operational tasks.

However, beyond the sole description of these SM-based innovation processes, it is interesting to highlight that this business innovation approach has been developed in parallel to ALPHA's classical R&D activities undertaken by their 800 researchers and experts in their 7 R&D centres worldwide. Hence the ALPHABUZZ initiative has been integrated and articulated within the ALPHA's R&D organizational model.

4 Discussion and areas for feedback and development

This research provides several contributions. First, results from this study expose the determinants of an integrated framework of SM-based innovation (mixing internal and external sources), and expose the different associated benefits, while previous research focuses only on some of these points. Interestingly, this newly, low-cost and high potential approach to innovation is conducted complementary to traditional R&D processes. Moreover, it highlights organizational mechanisms to overcome barriers to make it successful. To reveal some of them we have noticed: (i) the importance of clearly defining strategic domains for the future; (ii) making sure of ways of harvesting and articulating inputs from outside as well from inside the organization; (iii) committing directly BUs in the incubation process since the beginning; etc.

This study reveals organizational good practices that may inspire innovation managers. First, it deepens the knowledge about the use of SM as boundary-spanning tools to develop companies' innovation capabilities. Second, the results contribute to a better understanding of new ICT-based open innovation management to develop innovative businesses and ventures.

During the presentation of this work-in progress, we would particularly appreciate feedback about the different innovation management theoretical lenses that may provide new insights to the case study results, such as organizational ambidexterity, etc.

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